

| Notice of Allowability | Application No. | Applicant(s) | |
|-------------------------------|------------------------|---------------------|--|
| | 09/997,445 | XUE ET AL. | |
| | Examiner | Art Unit | |
| | Georgia Helmer | 1638 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTO-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to the amendment filed 9 January 2006.
2. The allowed claim(s) is/are 13,15 and 16.
3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some* c) None of the:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____ .
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____ .
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. Notice of References Cited (PTO-892)
2. Notice of Draftperson's Patent Drawing Review (PTO-948)
3. Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. Notice of Informal Patent Application (PTO-152)
6. Interview Summary (PTO-413),
Paper No./Mail Date 26January/06 .
7. Examiner's Amendment/Comment
8. Examiner's Statement of Reasons for Allowance
9. Other _____.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Daniel Altman on 26 January 2006.

2. IN THE CLAIMS:

Cancel claim 13.

ADD NEW CLAIMS:

Claim 15. (new)

A transgenic *Dunaliella Salina* bioreactor comprising:

Dunaliella Salina transformed to provide transgenic *Dunaliella Salina* with a foreign target gene comprising a tumor necrosis factor (TNF) and a selectable marker selected from the group consisting of the aadA gene encoding spectinomycin or streptomycin, and a BAR gene encoding herbicide phosphinothricin (PPT) resistance.

Claim 16. (new)

A method for preparing a transgenic *Dunaliella Salina* bioreactor comprising the following steps:

- (a) transforming the cells of *Dunaliella Salina* to provide transgenic *Dunaliella Salina* by introducing into the cells of *Dunaliella Salina* an expression vector comprising a foreign target gene comprising a tumor necrosis factor gene, together with a selectable marker selected from the group consisting of the *aadA* gene encoding spectinomycin or streptomycin resistance, and a *BAR* gene encoding herbicide phosphinothricin (PPT) resistance, to produce the *Dunaliella Salina* expression vector; and
- (b) screening the cells of transgenic *Dunaliella Salina* for expression of the selectable marker, showing transformation and expression of the foreign target gene.

Claim 17. (new)

The method of claim 16, wherein the *Dunaliella Salina* expression vector comprises the *Dunaliella Salina* chloroplast *atpA* 5'promoter sequence and the *rbcL* 3' terminator sequence.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Georgia L. Helmer whose telephone number

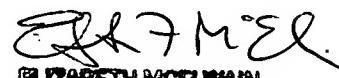
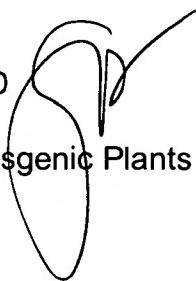
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is 571-272-0796. The examiner can normally be reached on M-Th, 10:30 AM-6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on 571-272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Georgia Helmer PhD
Patent Examiner
Art Unit 1638 – Transgenic Plants
6 February 2006



ELIZABETH McELWAIN
PRIMARY EXAMINER